

WHAT IS CLAIMED IS:

1. A circular-shaped metal structure fabricated by plastic-working and having a wall thickness in the range of 0.03 mm to 0.09 mm both inclusive,
5 a film composed of one of (a) silicon and fluorocarbon resin and (b) copper being coated on a surface of said circular-shaped metal structure.

2. The circular-shaped metal structure as set forth in claim 1, wherein said film is coated only on an outer surface of said circular-shaped metal structure.

10 3. The circular-shaped metal structure as set forth in claim 1, wherein a reduction rate of a thickness of said circular-shaped metal structure after plastic-worked to a thickness of said circular-shaped metal structure before plastic-worked is equal to or greater than 40%.

15 4. The circular-shaped metal structure as set forth in claim 1, wherein said circular-shaped metal structure has a Vickers hardness Hv equal to or greater than 380 after plastic-worked.

20 5. The circular-shaped metal structure as set forth in claim 1, wherein said circular-shaped metal structure has a Vickers hardness Hv in the range of 100 to 250 both inclusive after plastic-worked and then annealed.

25 6. The circular-shaped metal structure as set forth in claim 1, wherein said plastic-working is spinning-working.

7. A circular-shaped metal structure fabricated by plastic-working and having a wall thickness in the range of 0.03 mm to 0.09 mm both inclusive,
said circular-shaped metal structure being comprised of a plurality of metals

different from one another and integrally rolled.

8. The circular-shaped metal structure as set forth in claim 7, wherein said metals are stainless steel and copper.

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9. The circular-shaped metal structure as set forth in claim 8, wherein a ratio A:B is in the range of 1:2 to 29:1 both inclusive wherein A indicates a thickness of said stainless steel and B indicates a thickness of said copper.

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10. The circular-shaped metal structure as set forth in claim 8, wherein said circular-shaped metal structure has a wall thickness of 0.03 mm, in which said stainless steel has a thickness in the range of 0.01 mm to 0.029 mm both inclusive and said copper has a thickness in the range of 0.02 mm to 0.001 mm both inclusive.

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11. The circular-shaped metal structure as set forth in claim 7, wherein a film composed of silicon and fluorocarbon resin is coated on a surface of said circular-shaped metal structure.

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12. The circular-shaped metal structure as set forth in claim 11, wherein said film is coated only on an outer surface of said circular-shaped metal structure.

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13. The circular-shaped metal structure as set forth in claim 7, wherein said circular-shaped metal structure is plated at a surface thereof with copper.

14. The circular-shaped metal structure as set forth in claim 13, wherein said circular-shaped metal structure is plated only at an outer surface thereof with copper.

15. The circular-shaped metal structure as set forth in claim 7, wherein a reduction rate of a thickness of said circular-shaped metal structure after plastic-worked to a thickness of said circular-shaped metal structure before plastic-worked is equal to or greater than 40%.

16. The circular-shaped metal structure as set forth in claim 7, wherein said circular-shaped metal structure has a Vickers hardness Hv equal to or greater than 380 after plastic-worked.

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17. The circular-shaped metal structure as set forth in claim 7, wherein said circular-shaped metal structure has a Vickers hardness Hv in the range of 100 to 250 both inclusive after plastic-worked and then annealed.

18. The circular-shaped metal structure as set forth in claim 7, wherein said plastic-working is spinning-working.

19. A method of fabricating a circular-shaped metal structure, comprising:
rotating a pipe around an axis thereof, said pipe being composed of plastic-workable metal;

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applying drawing to an outer wall of said pipe with said pipe being kept rotated, to reduce a wall thickness of said pipe and lengthen a wall length of said pipe; and

coating a film composed of one of (a) silicon and fluorocarbon resin and (b) copper on a surface of said pipe.

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20. The method as set forth in claim 19, wherein said film is coated only on an outer surface of said pipe.

21. A method of fabricating a circular-shaped metal structure, comprising:
rolling a plurality of metals different from one another into a piece of metal;
fabricating a pipe from said metal;
rotating said pipe around an axis thereof; and

5 applying drawing to an outer wall of said pipe with said pipe being kept
rotated, to reduce a wall thickness of said pipe and lengthen a wall length of said
pipe.

22. The method as set forth in claim 21, further comprising coating a film
10 composed of one of (a) silicon and fluorocarbon resin and (b) copper on a surface
of said pipe.

23. The method as set forth in claim 22, wherein said metals are stainless
steel and copper.
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24. The method as set forth in claim 22, wherein said film is coated only on
an outer surface of said pipe.

25. A photosensitive drum to be used in an electrophotographic printer, said
20 photosensitive drum being comprised of a circular-shaped metal structure
fabricated by plastic-working and having a wall thickness in the range of 0.03
mm to 0.09 mm both inclusive, a film composed of one of (a) silicon and
fluorocarbon resin and (b) copper being coated on a surface of said
circular-shaped metal structure.

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26. A photosensitive drum to be used in an electrophotographic printer, said
photosensitive drum being comprised of a circular-shaped metal structure
fabricated by plastic-working and having a wall thickness in the range of 0.03
mm to 0.09 mm both inclusive, said circular-shaped metal structure being

comprised of a plurality of metals different from one another and integrally rolled.

27. A fixing belt to be used in an electrophotographic printer, said fixing belt
5 being comprised of a circular-shaped metal structure fabricated by plastic-working and having a wall thickness in the range of 0.03 mm to 0.09 mm both inclusive, a film composed of one of (a) silicon and fluorocarbon resin and (b) copper being coated on a surface of said circular-shaped metal structure.

10 28. A fixing belt to be used in an electrophotographic printer, said fixing belt being comprised of a circular-shaped metal structure fabricated by plastic-working and having a wall thickness in the range of 0.03 mm to 0.09 mm both inclusive, said circular-shaped metal structure being comprised of a plurality of metals different from one another and integrally rolled.

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29. A roller assembly comprising:

(a) at least two rollers arranged such that axes of said rollers are directed in parallel to one another; and

(b) a belt wound around said rollers,

20 said belt being comprised of a circular-shaped metal structure fabricated by plastic-working and having a wall thickness in the range of 0.03 mm to 0.09 mm both inclusive, a film composed of one of (a) silicon and fluorocarbon resin and (b) copper being coated on a surface of said circular-shaped metal structure.

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30. A roller assembly comprising:

(a) at least two rollers arranged such that axes of said rollers are directed in parallel to one another; and

(b) a belt wound around said rollers,

said belt being comprised of a circular-shaped metal structure fabricated by

plastic-working and having a wall thickness in the range of 0.03 mm to 0.09 mm both inclusive, said circular-shaped metal structure being comprised of a plurality of metals different from one another and integrally rolled.